

## Enhanced Understanding of Aerosol Climate-forcing Properties through Global Monitoring

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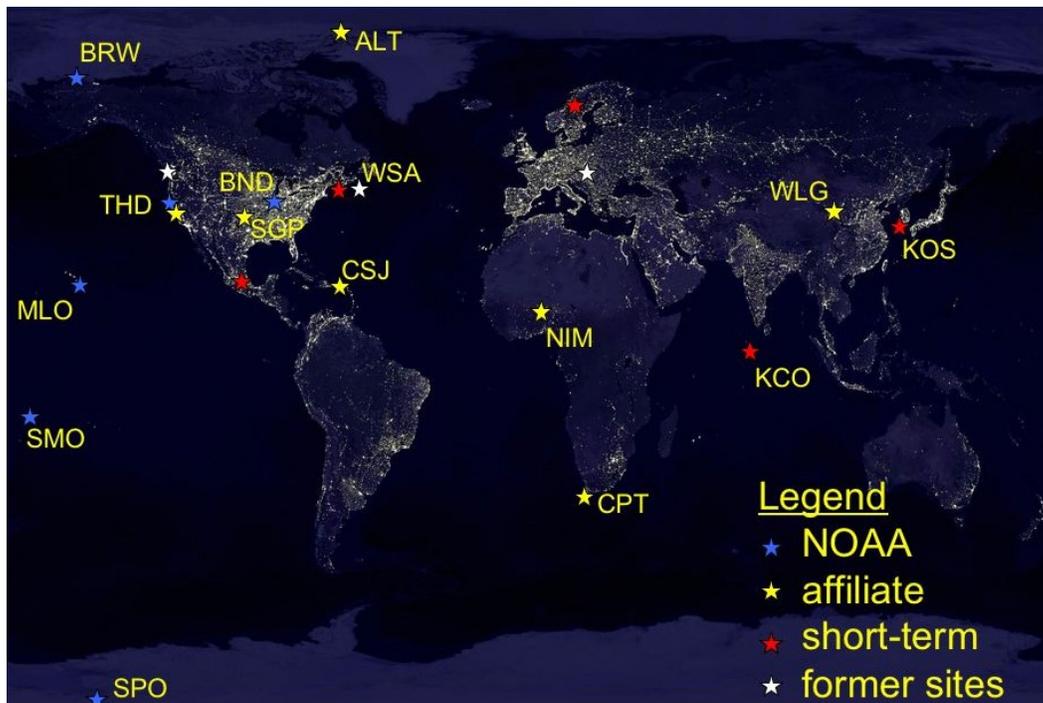
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Measurements of aerosol climate-forcing properties, both from short-term field campaigns and long-term monitoring programs, reveal large variability in space and time. Global model calculations of aerosol forcing of climate require values of aerosol optical properties as input, and the values used are typically held constant or only allowed to vary depending on the aerosol type (e.g., mineral dust, soot, industrial pollution). One goal of ESRL's aerosol monitoring program is to provide regionally-representative values of aerosol optical properties for use in global model calculations of aerosol forcing. The scope of ESRL's aerosol monitoring network has been expanded substantially in the past two years through collaborations with outside partners with similar interests, involving stations in Canada, China, Puerto Rico, and South Africa. This talk will give an overview of the results from the collaborative stations, and contrast them with aerosol properties at ESRL's baseline and regional aerosol monitoring stations.



**Figure 1.** Collaborative stations (yellow symbols) greatly enhance the geographic scope of the ESRL network.